

V&V Reference Report

L2 ASCDS Version : 8.4.3

Observation 13857 - L2 Version 2
Chandra X-Ray Center

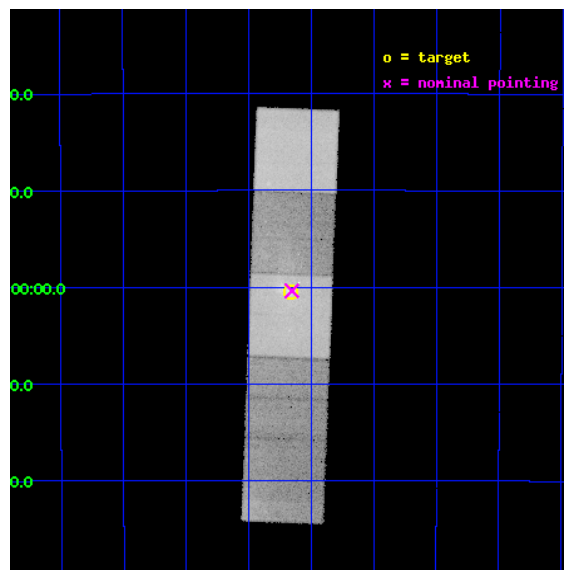
L2 Processing Date : Aug 16 2012

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1 Front

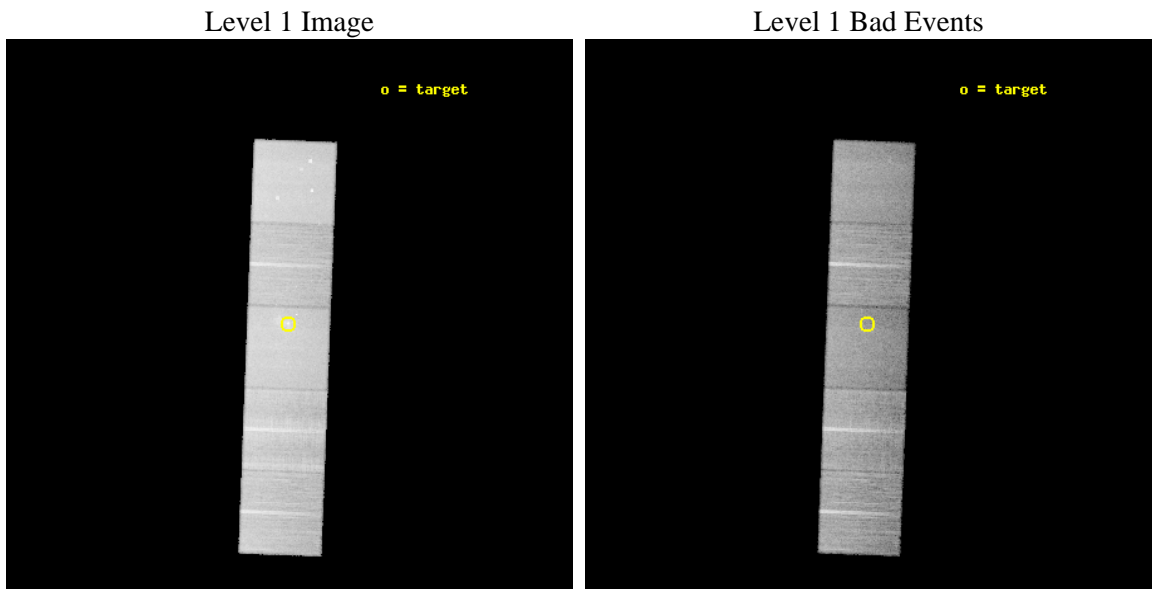
seq_num	601017	Sequence number
obs_id	13857	Observation id
title	Chandra HETG Ultra-deep Gratings Spectroscopy of Sgr A* (CHUGSS)	P
observer	Dr. Frederick Baganoff	Principal investigator
object	Sgr A*	Source name
dtcycle	0	
cycle	P	events from which exps? Prim/Second/Both
ra_targ	266.416667	Observer's specified target RA [deg]
dec_targ	-29.007806	Observer's specified target Dec [deg]
ra_nom	266.41369242725	Nominal RA [deg]
dec_nom	-29.006276758355	Nominal Dec [deg]
roll_nom	92.155187427345	Nominal Roll [deg]
revision	2	Processing version of data
ontime	39552.900304198	Sum of GTIs [s]
livetime	39036.112543302	Livetime [s]
ontime5	39552.900304198	Sum of GTIs [s]
ontime6	39552.900304198	Sum of GTIs [s]
ontime7	39552.900304198	Sum of GTIs [s]
ontime8	39546.618283749	Sum of GTIs [s]
ontime9	39552.900304198	Sum of GTIs [s]
l2events	424881	Number of level 2 events



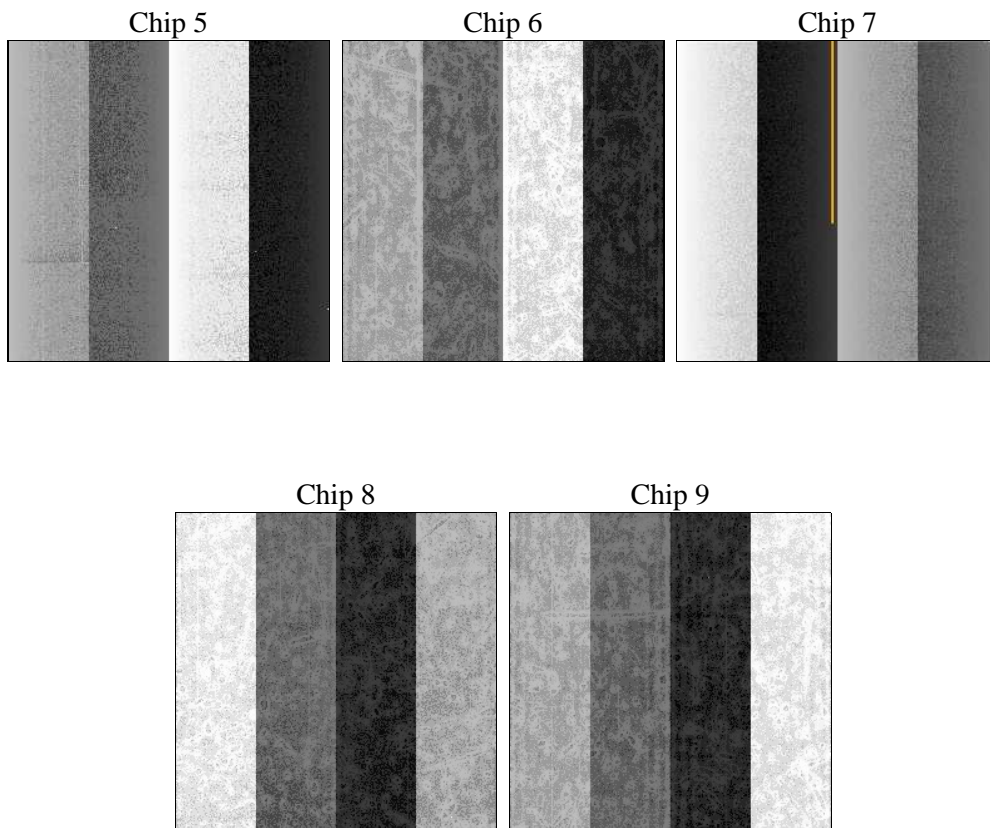
2 OBI

2.1 OBI

2.1.1 Images



2.1.2 Bias



2.1.3 Parameters

obi_num	1	Obi number	sched_exp_time	39491.000000	[s] Scheduled observation exposure time
ascdsver	8.4.3	Processing system revision	ontime	39552.900304198	Sum of GTIs [s]
caldbver	4.4.8	 	ontime5	39552.900304198	Sum of GTIs [s]
date	2012-03-18T12:57:57	Date and time of file creation	ontime6	39552.900304198	Sum of GTIs [s]
revision	1	Processing version of data	ontime7	39552.900304198	Sum of GTIs [s]
			ontime8	39546.618283749	Sum of GTIs [s]
			ontime9	39552.900304198	Sum of GTIs [s]
			l1events	1387353	Number of level 1 events

2.1.4 Events

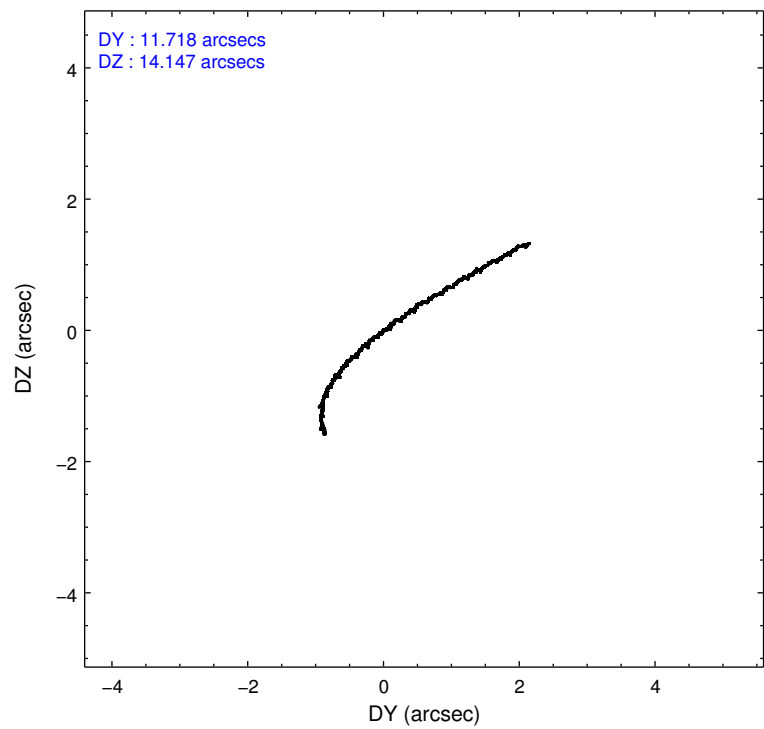
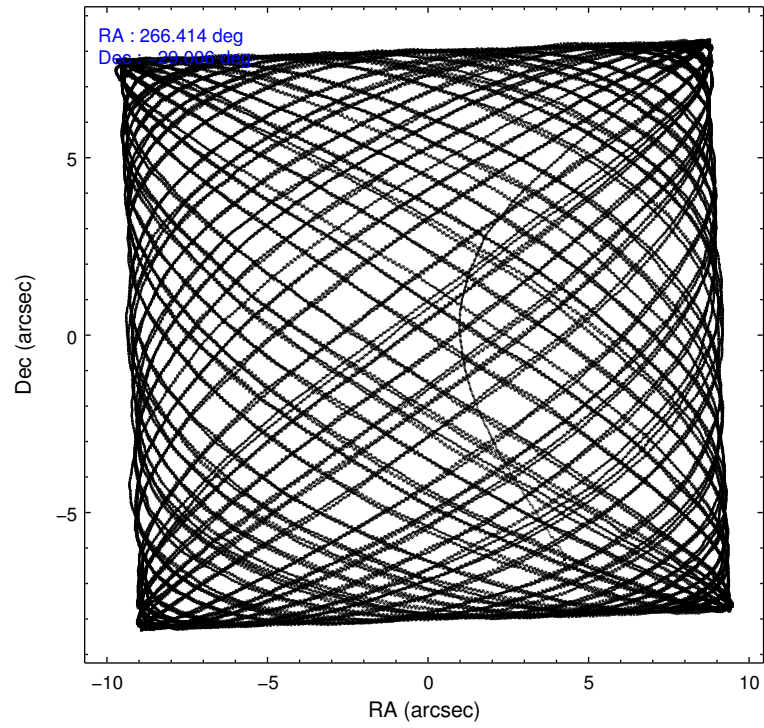
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
level 1 events	338197	233100	308976	285633	221447
rejected events	171143	185659	154374	201692	183862
rejected %	50%	79%	49%	70%	83%

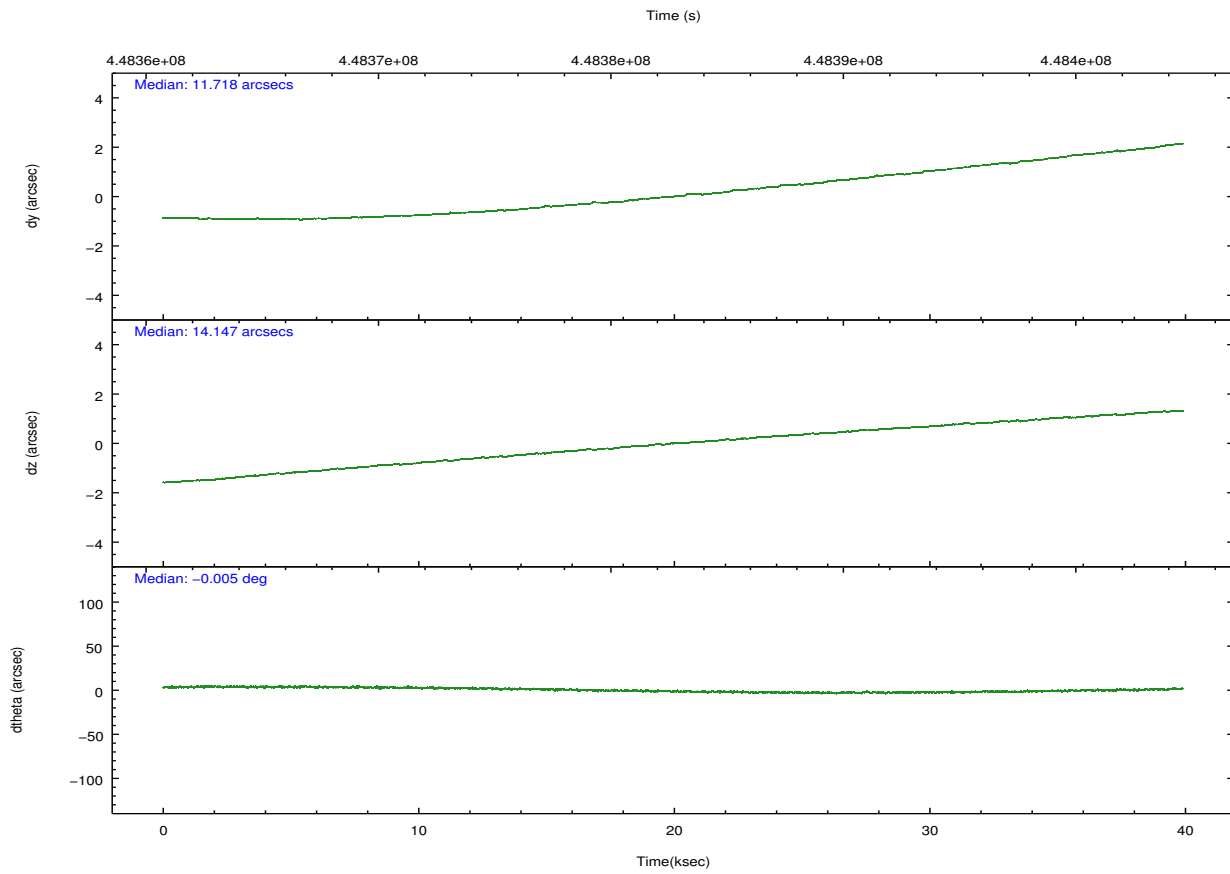
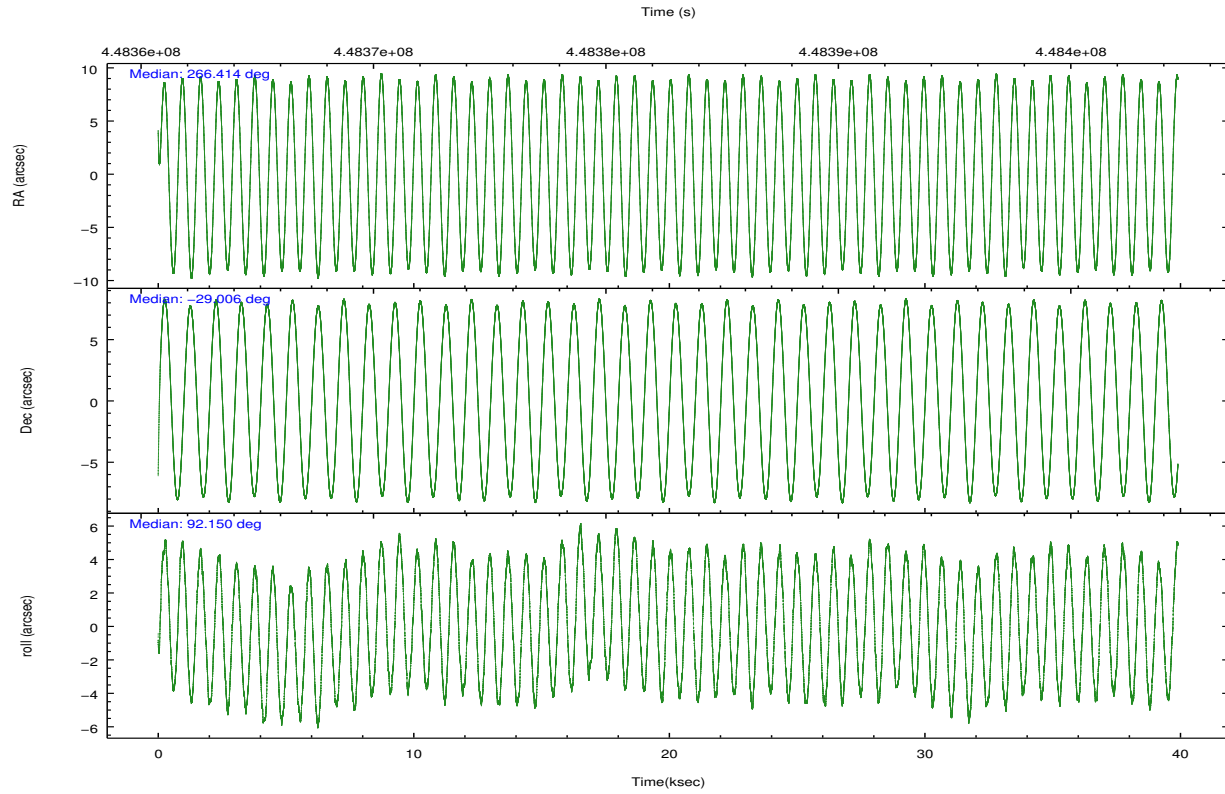
	ccd 5	ccd 6	ccd 7	ccd 8	ccd 9
grade 0 events	13680	23177	17638	29483	17588
	4%	9%	5%	10%	7%
grade 1 events	687	160	320	250	166
	0%	0%	0%	0%	0%
grade 2 events	51627	8899	32910	18551	7215
	15%	3%	10%	6%	3%
grade 3 events	6137	3670	13772	8168	3309
	1%	1%	4%	2%	1%
grade 4 events	6113	3691	13619	7899	3049
	1%	1%	4%	2%	1%
grade 5 events	25023	10557	28231	15020	11546
	7%	4%	9%	5%	5%
grade 6 events	89511	8006	76676	19844	6425
	26%	3%	24%	6%	2%
grade 7 events	145419	174940	125810	186418	172149
	42%	75%	40%	65%	77%

2.2 Compared Parameters

Parameter	Planned	Actual	Parameter	Planned	Actual
Instrument	ACIS	ACIS	Obspar format version number	7	7
Detector	ACIS-56789	ACIS-56789	Obspar file type	PREDICTED	ACTUAL
Grating	HETG	HETG	Obspar update status	NONE	UPDATED
Data mode	FAINT	FAINT	Number of optional ACIS chips dropped	0	0
Observation mode	POINTING	POINTING	On-chip summing requested	N	N
[deg] Pointing RA	266.430680	266.4136924272511	Subarray requested	NONE	NONE
[deg] Pointing Dec	-29.029222	-29.00627675835471	Alternating exposures requested	N	N
[deg] Pointing Roll	92.006803	92.15518742734518	[s] Primary exposure time	0.000000	3.1
[mm] SIM focus pos	-0.684267	-0.6828225247311905			
[mm] SIM defocus	0	0.001444936568705701			
[mm] SIM translation stage pos	-190.132523	-190.1425803651734			
[mm] SIM translation stage offset	0	0.01005778216563158			
[s] Observation start time (MET)	448363129.184000	448361930.78256			
Observation start date	2012-03-17T09:17:43	2012-03-17T08:58:50			
[s] Observation end time (MET)	448402620.184000	448403410.99726			
Observation end date	2012-03-17T20:15:54	2012-03-17T20:30:10			
Read mode	TIMED	TIMED			

2.3 Aspect



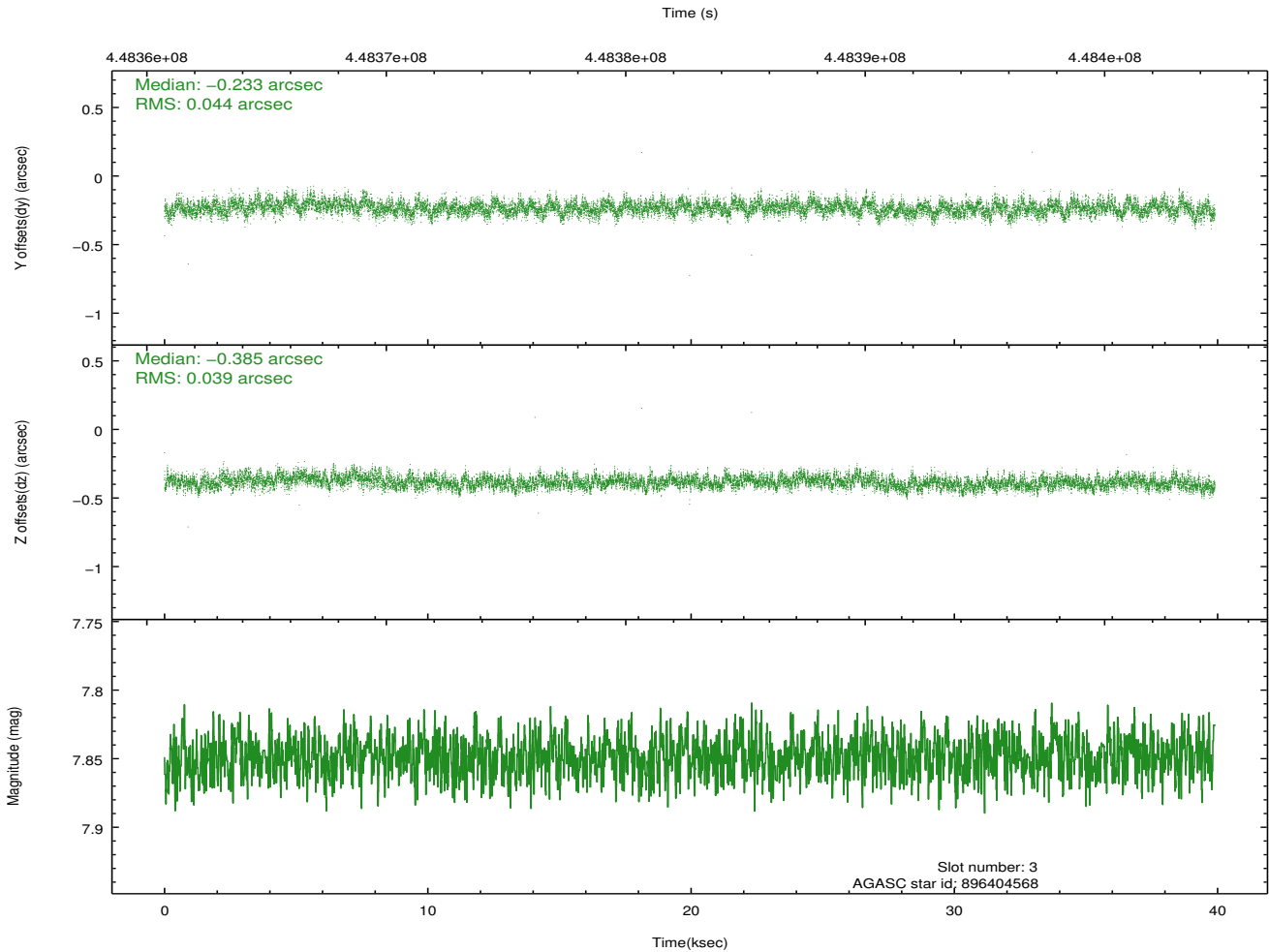
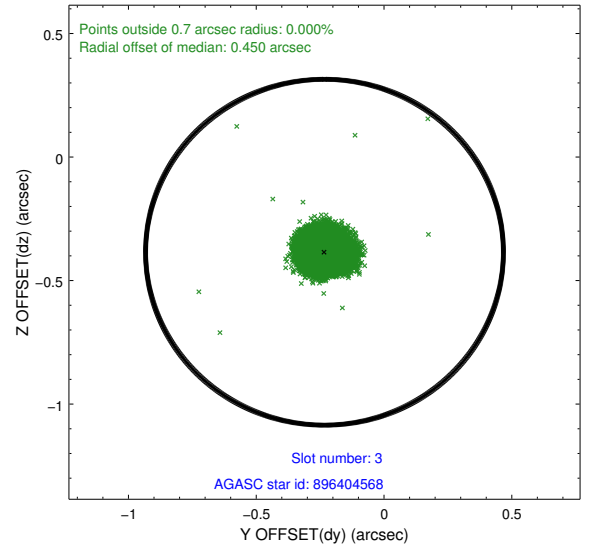
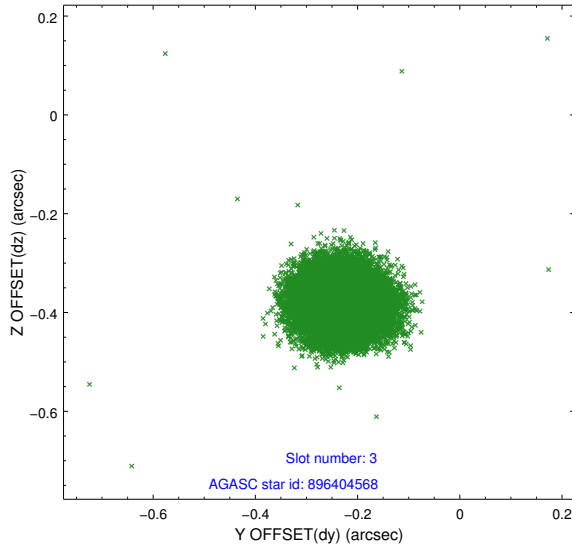


Slot Statistics

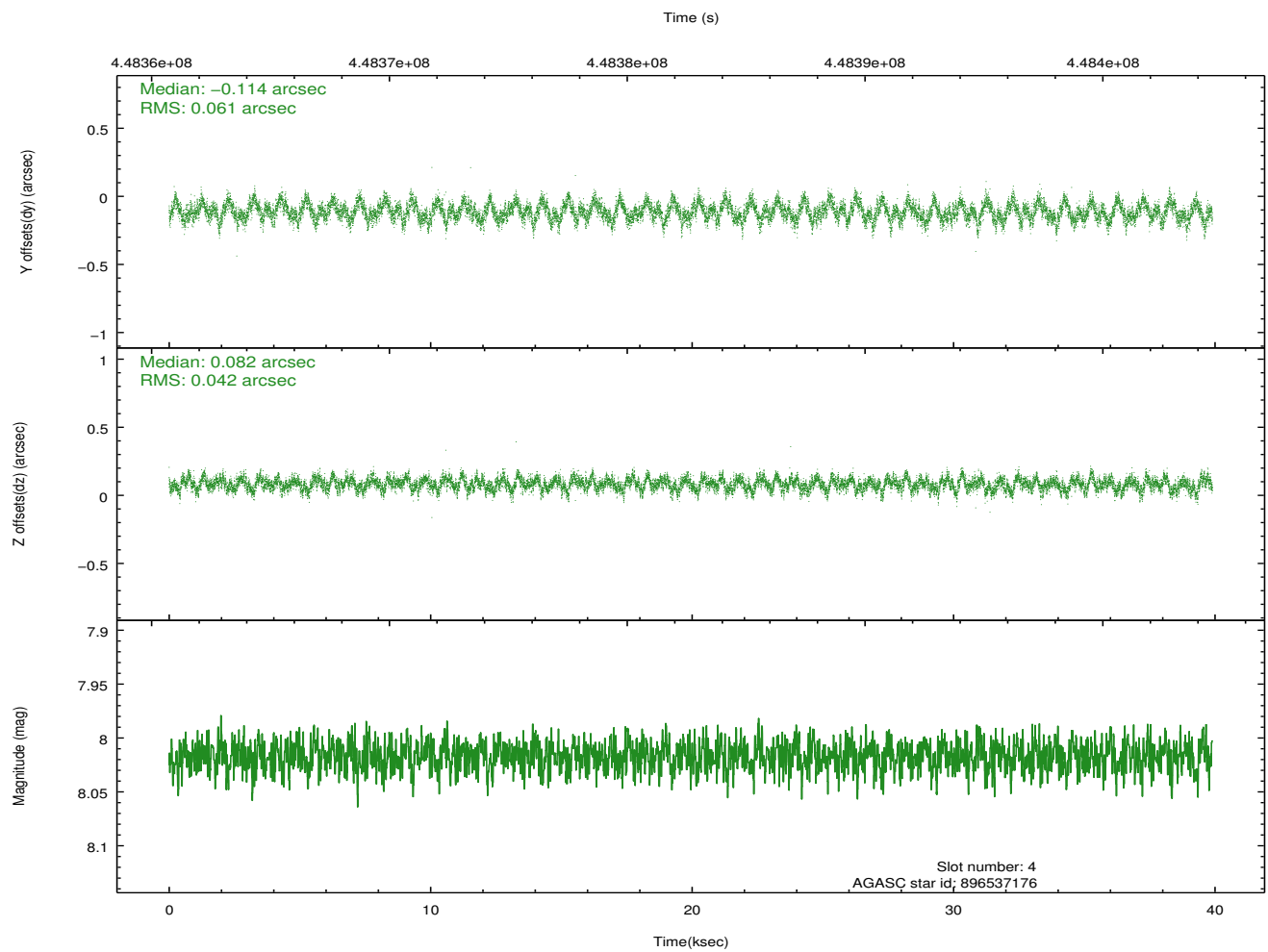
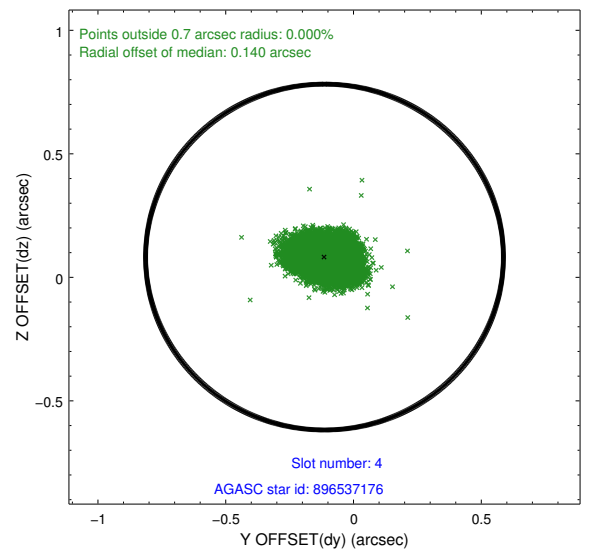
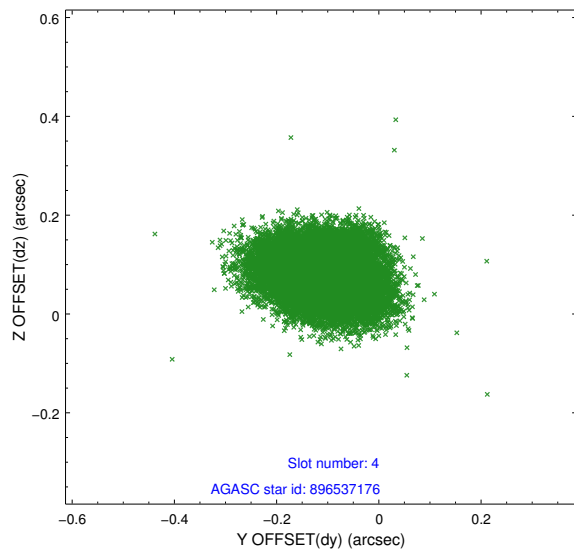
slot	status	id	mag	n_pts	med_dy	med_dz	dr1	dr2	ra	dec	mean_y	mean_z
0	FID	ACIS-S-1	7.06	9733	-0.017	-0.018	0.026	0.050	0.000000	0.000000	931.21	-1731.05
1	FID	ACIS-S-4	7.06	9733	0.087	-0.009	0.016	0.028	0.000000	0.000000	2148.73	173.11
2	FID	ACIS-S-6	7.20	9733	-0.096	0.039	0.022	0.032	0.000000	0.000000	397.09	810.53
3	GUIDE	896404568	7.85	19462	-0.233	-0.385	0.063	0.101	265.687293	-28.431080	2226.83	2276.89
4	GUIDE	896537176	8.02	19463	-0.114	0.082	0.079	0.129	266.498272	-28.678259	1255.29	-257.15
5	GUIDE	896540808	7.51	19463	0.055	-0.308	0.046	0.074	265.985401	-29.308604	-958.75	1432.02
6	GUIDE	896537776	7.52	19461	0.370	0.208	0.052	0.084	266.655684	-29.665673	-2314.67	-622.96
7	GUIDE	896538208	7.96	19461	-0.081	0.403	0.062	0.101	267.176969	-28.671626	1196.76	-2400.00

2.4 Star Slots

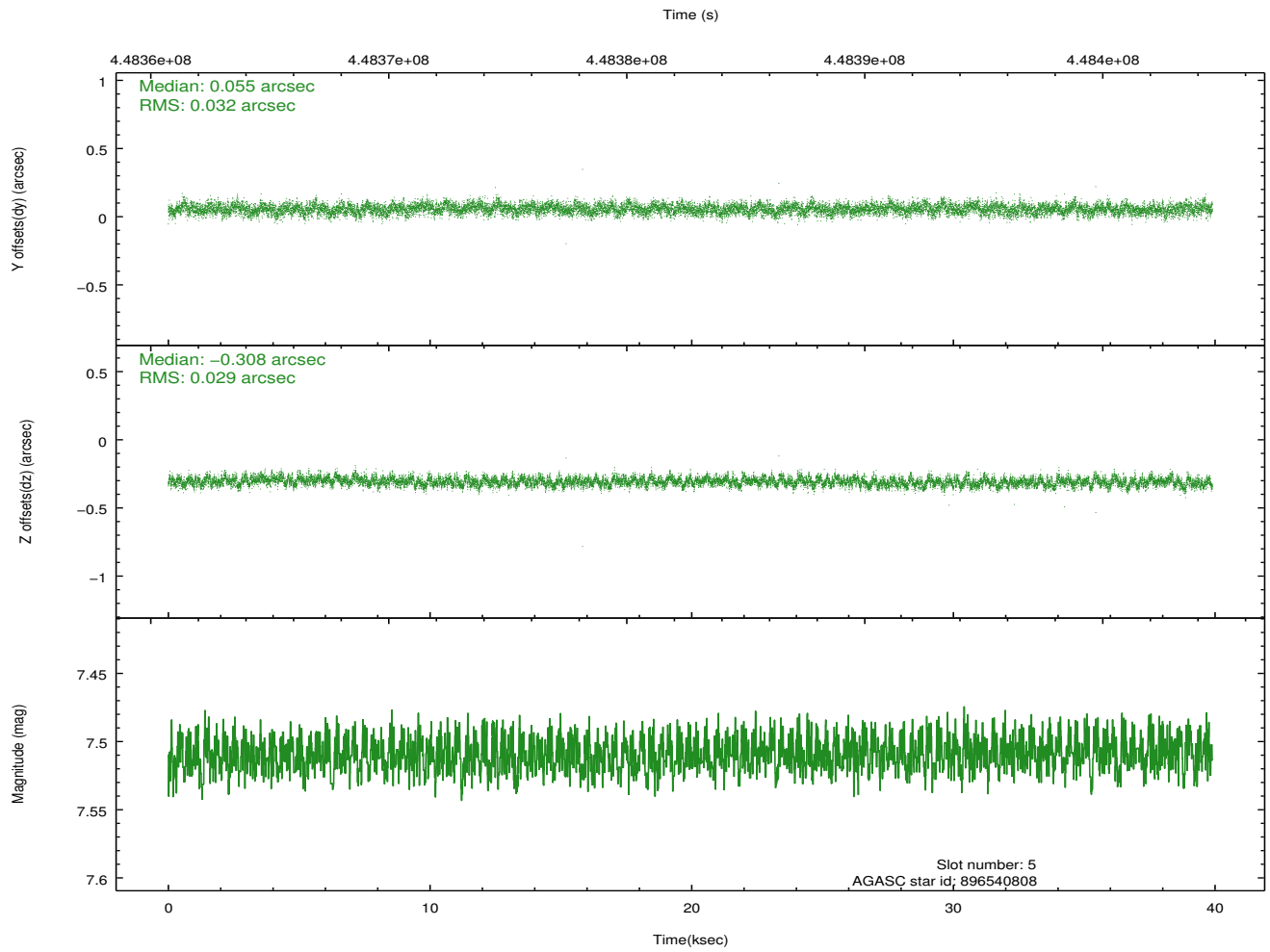
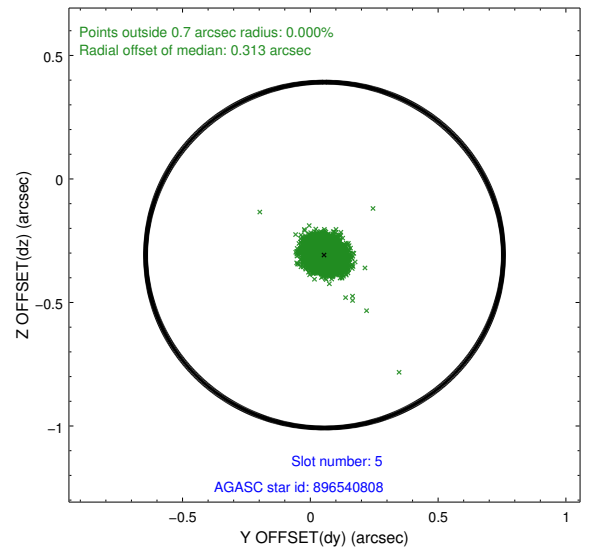
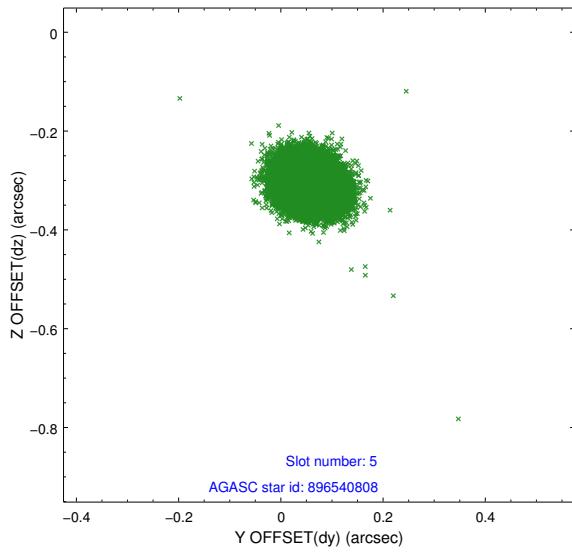
2.4.1 Slot 3



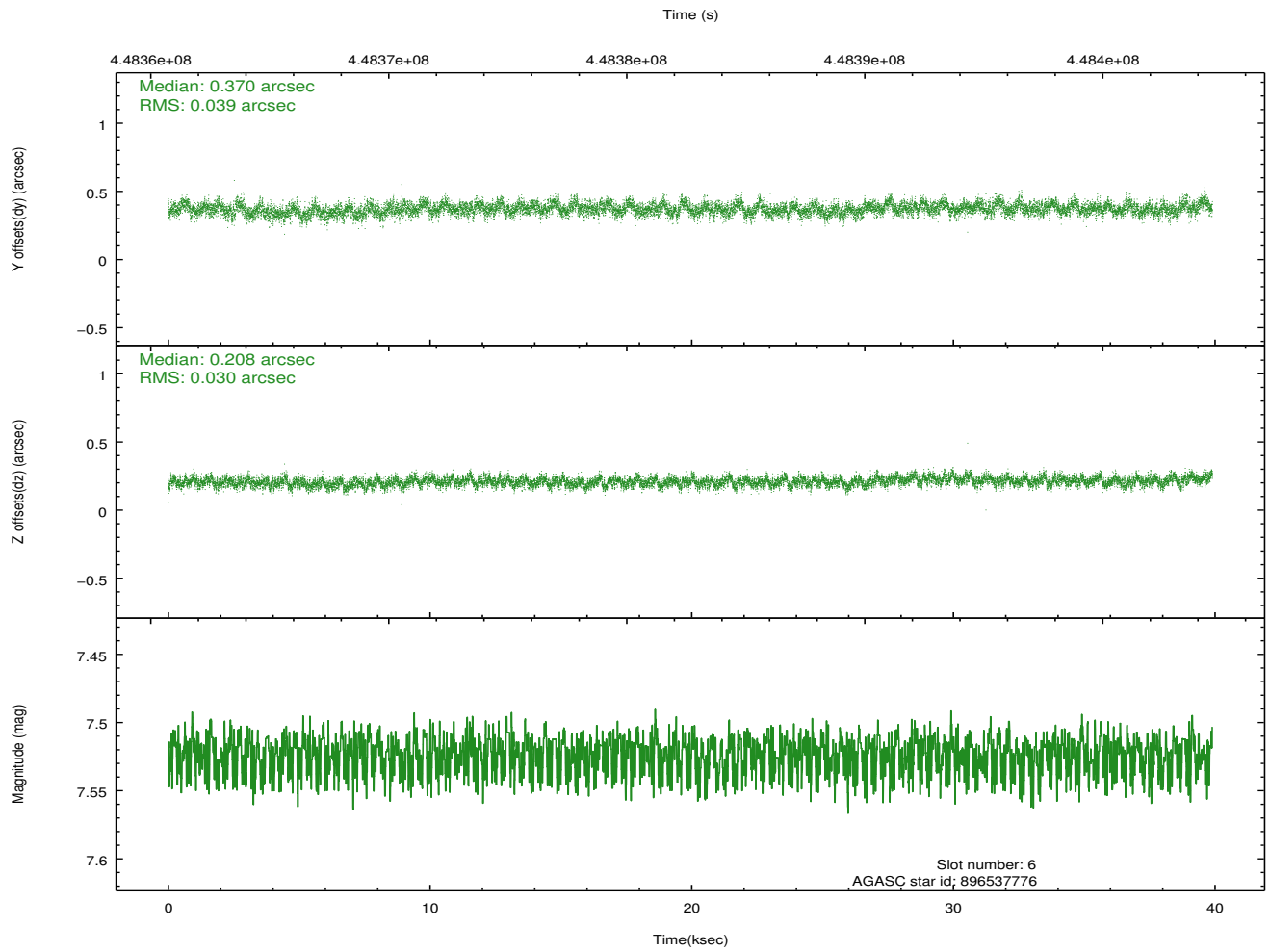
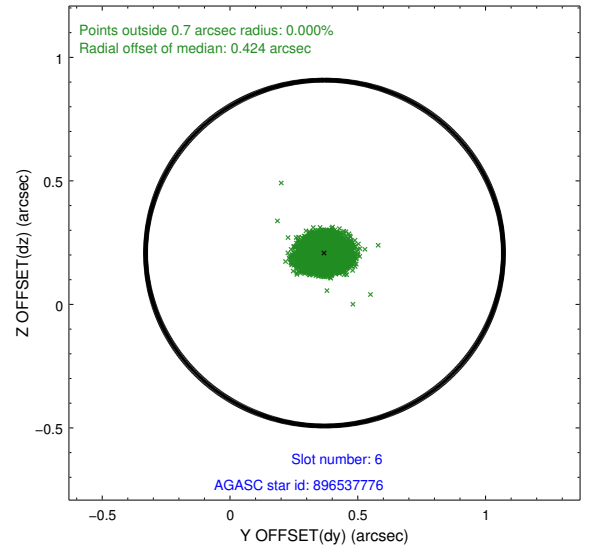
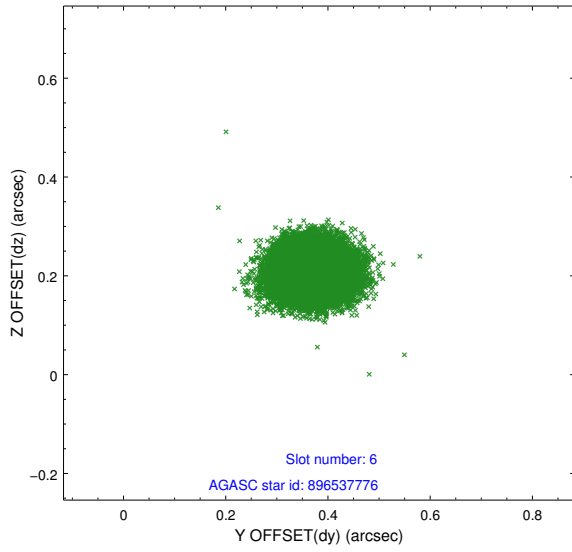
2.4.2 Slot 4



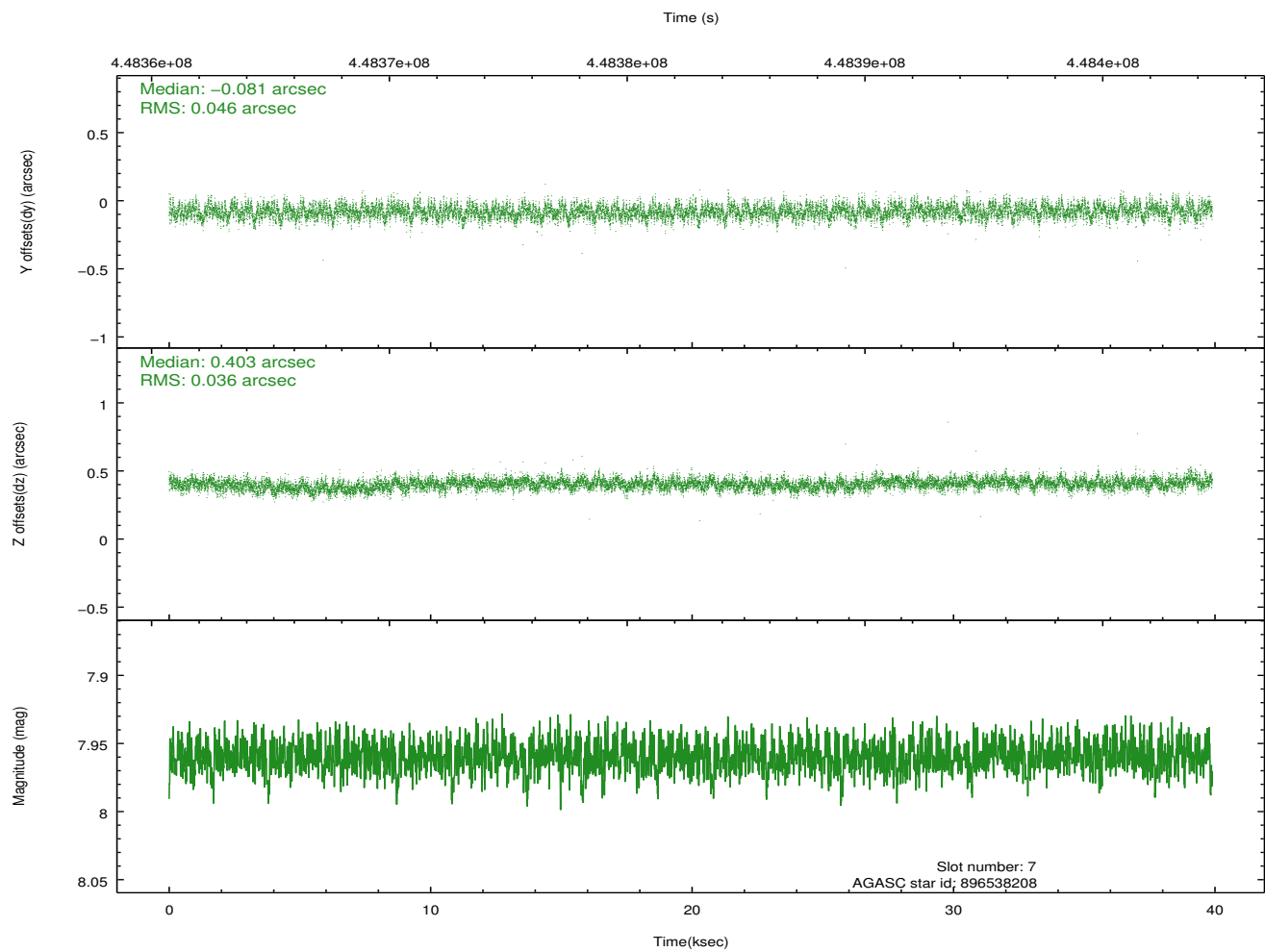
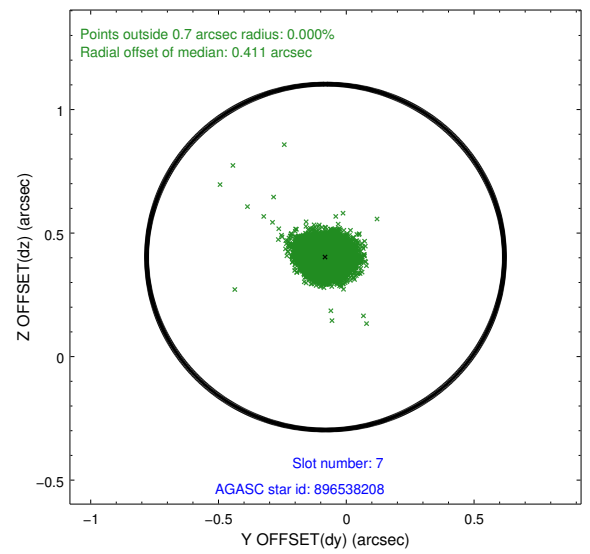
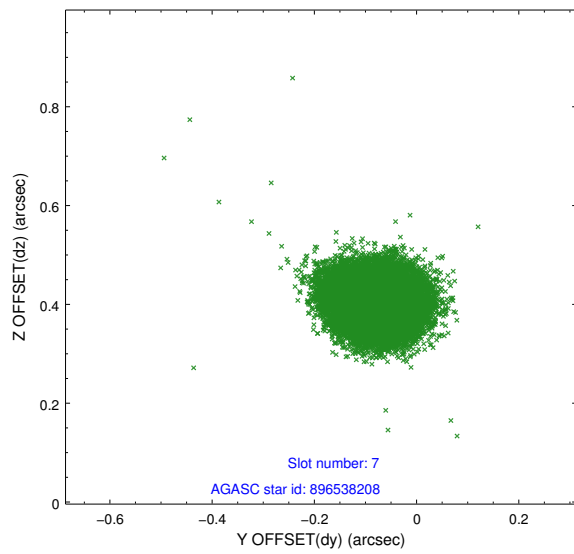
2.4.3 Slot 5



2.4.4 Slot 6

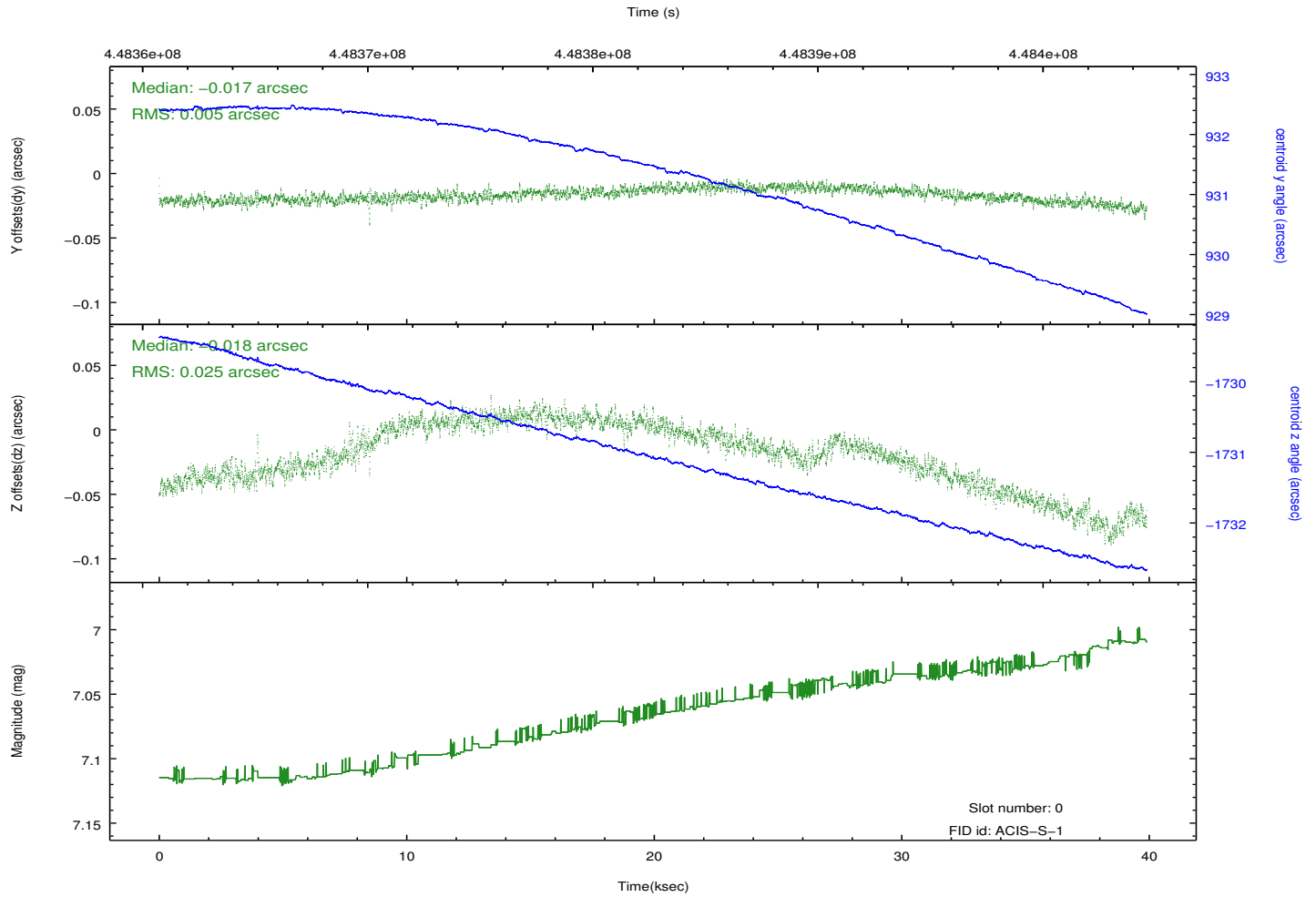
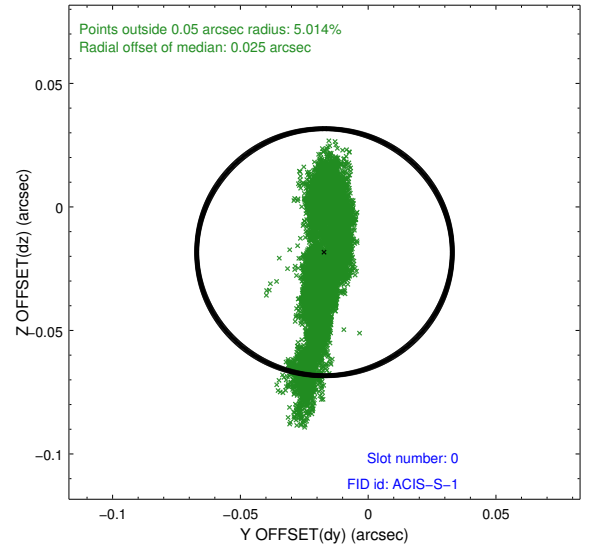
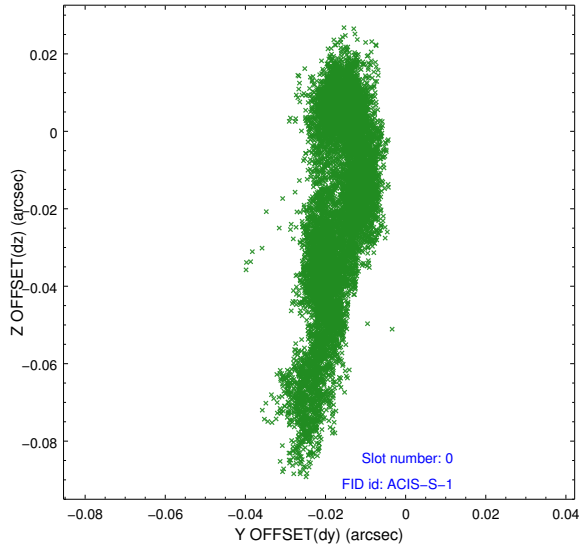


2.4.5 Slot 7

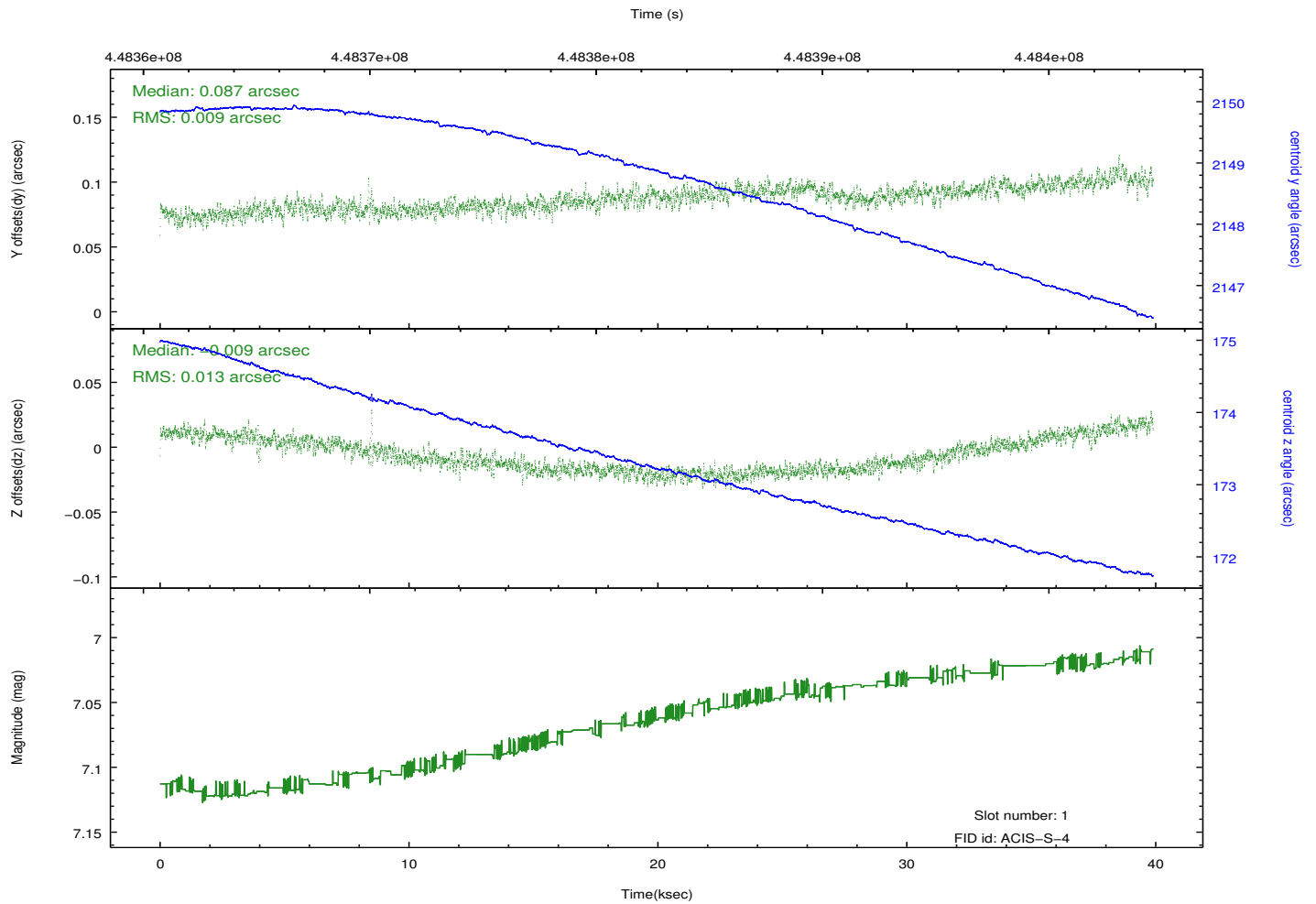
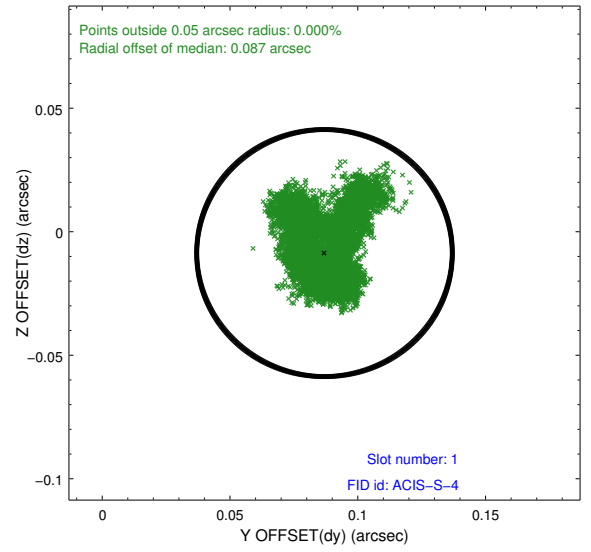
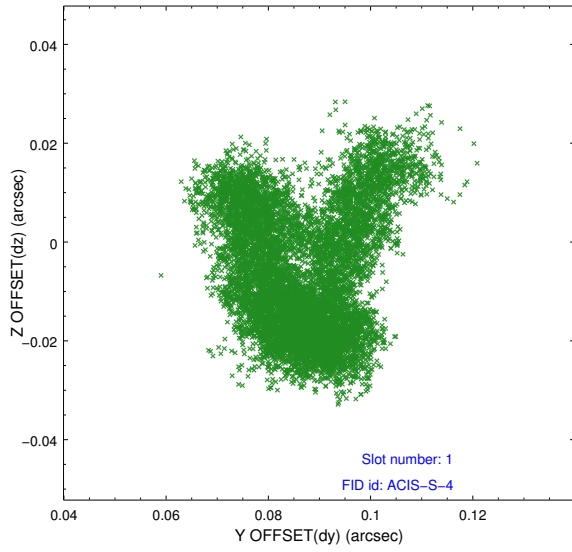


2.5 FID Slots

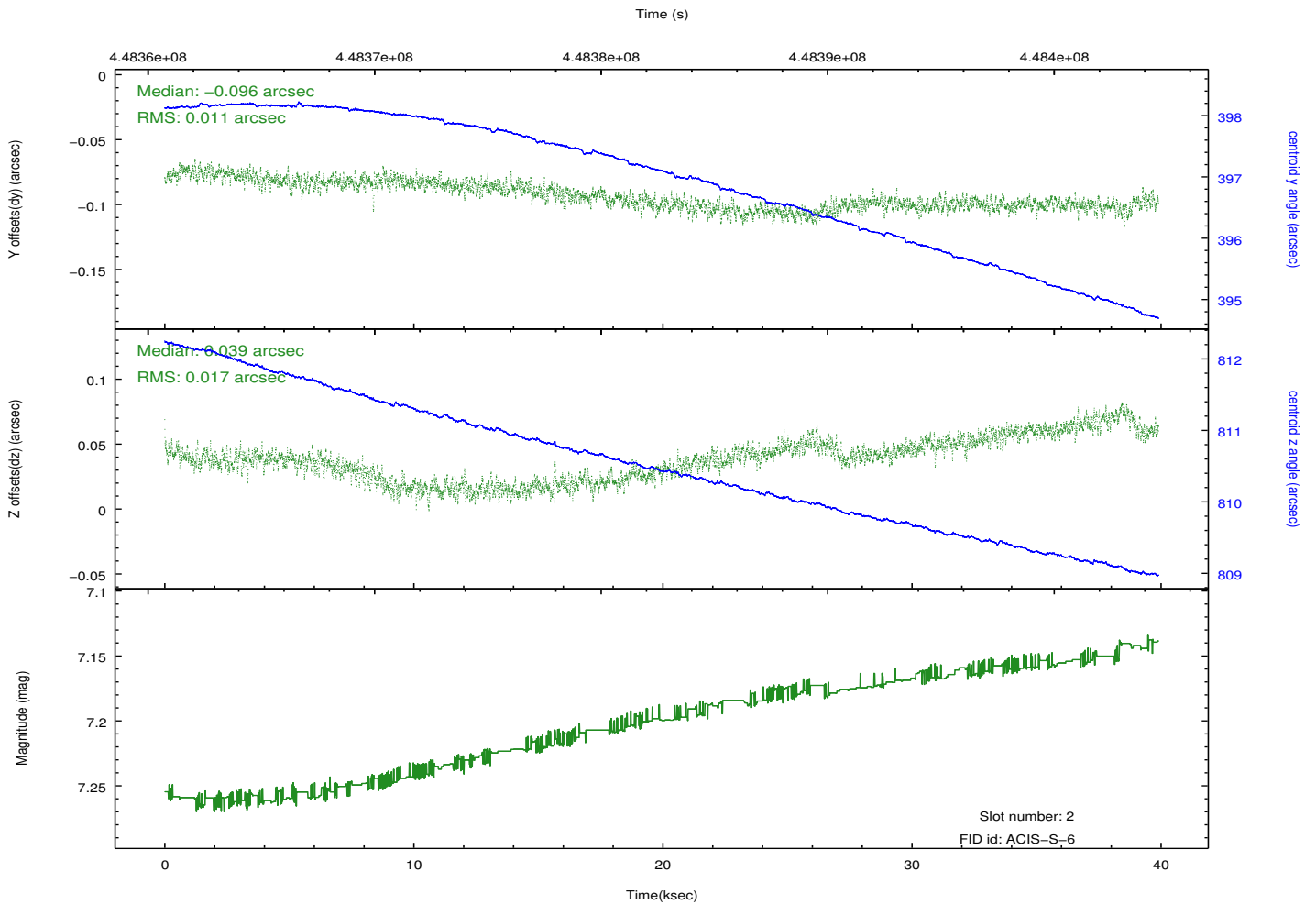
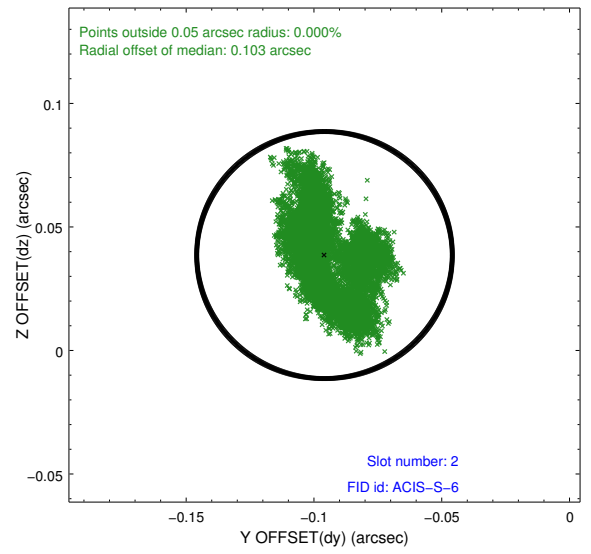
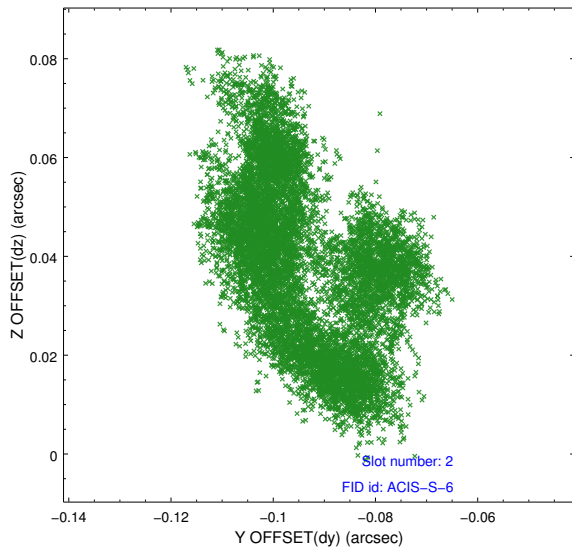
2.5.1 Slot 0



2.5.2 Slot 1

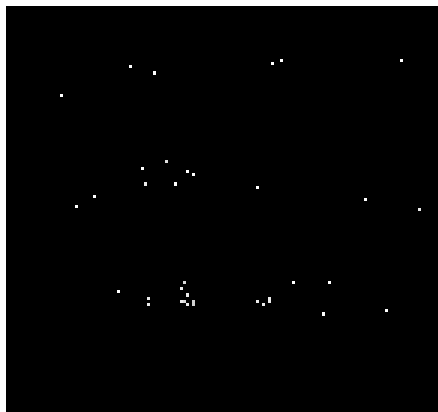


2.5.3 Slot 2

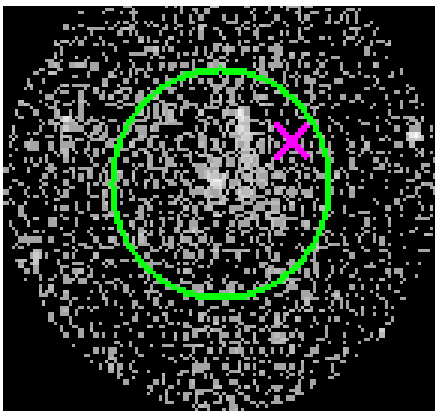


3 Gratings

3.1 HEG Arm



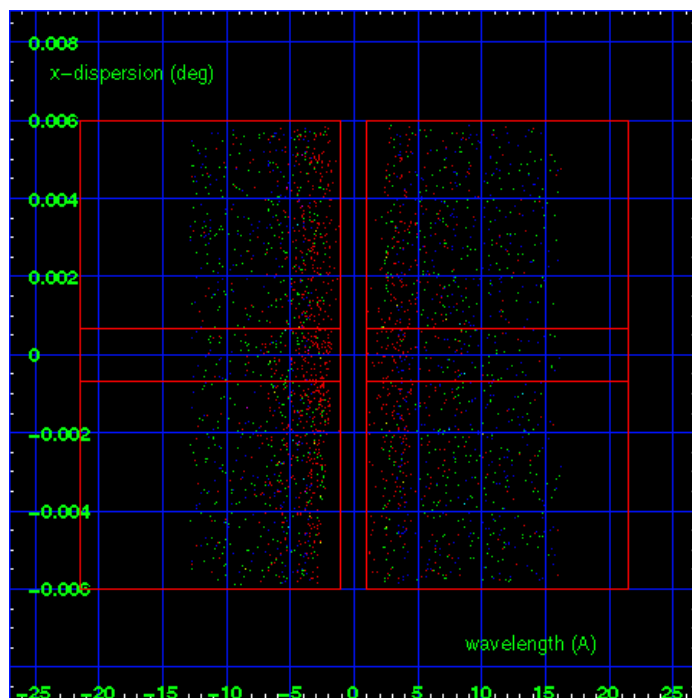
HEG Order Sort 123



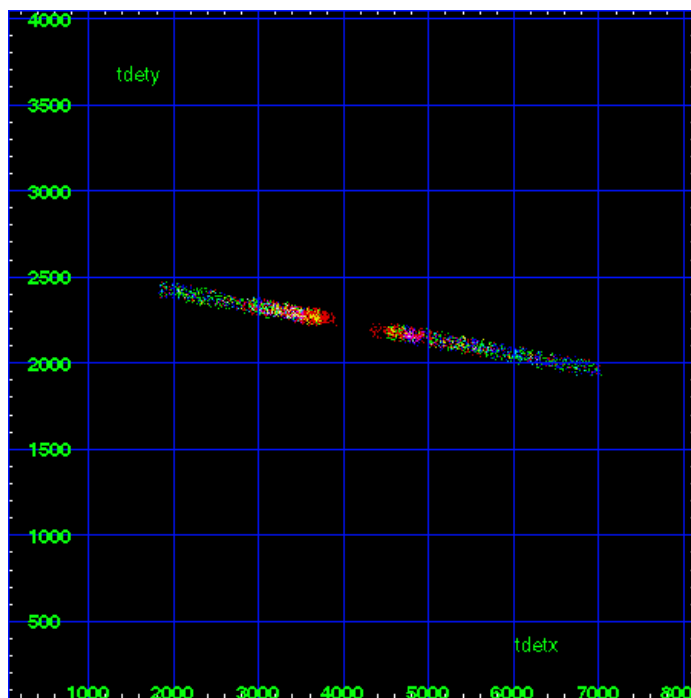
HEG Zero Order



HEG Order Sort ALL

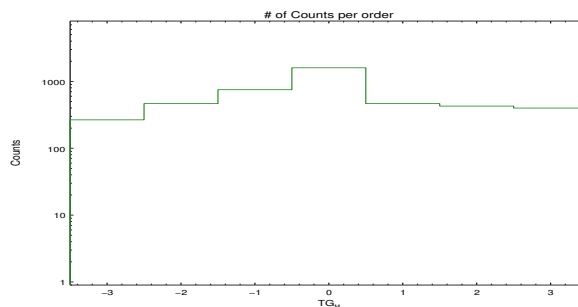


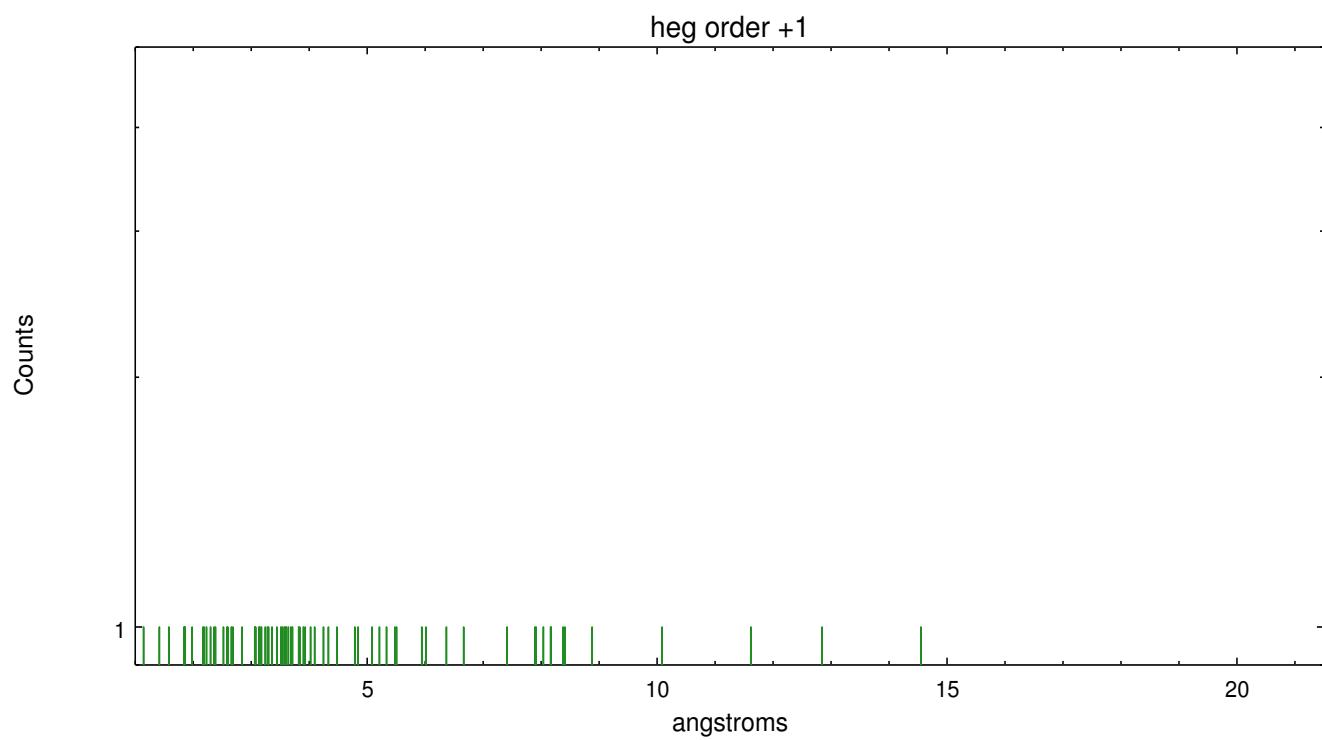
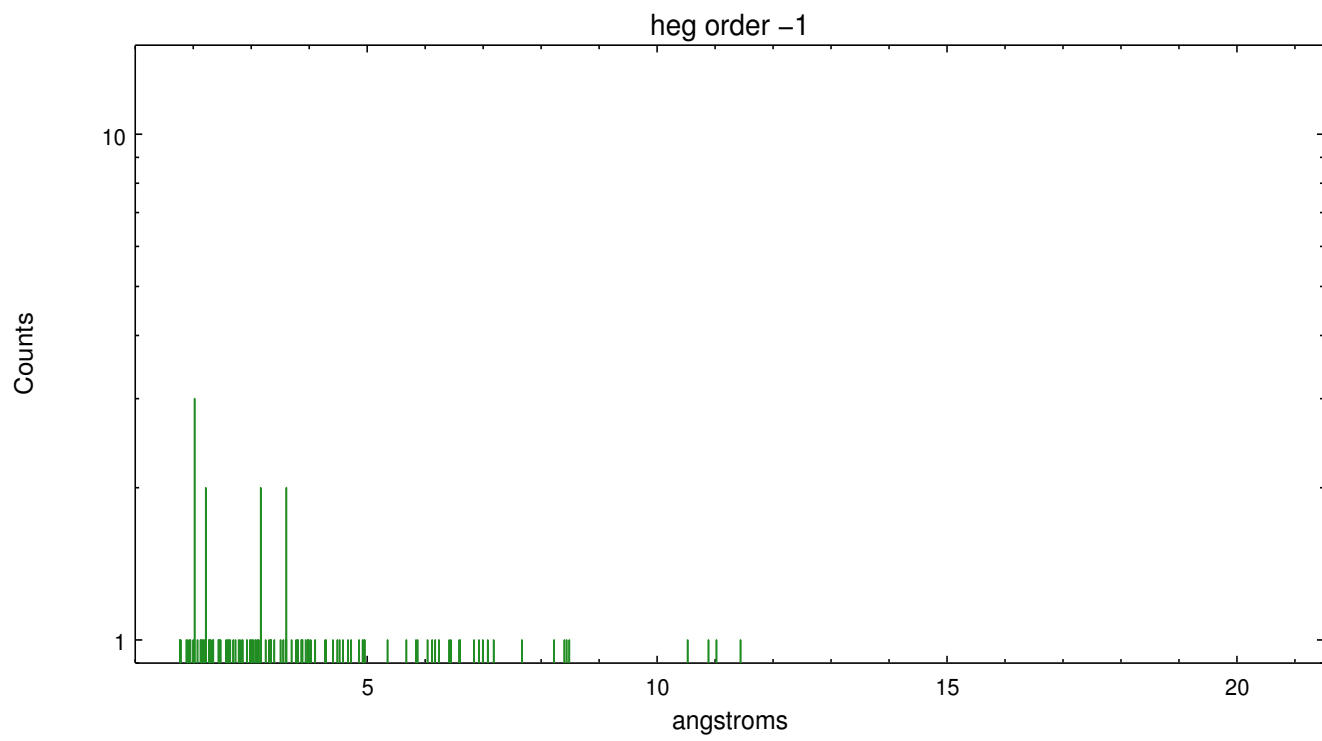
Spot Image HEG



Full Detector HEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	266	465	751	1597	465	427	399

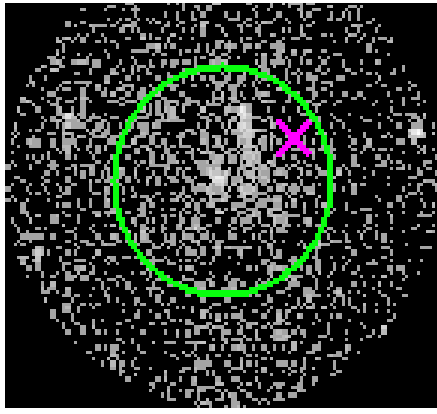




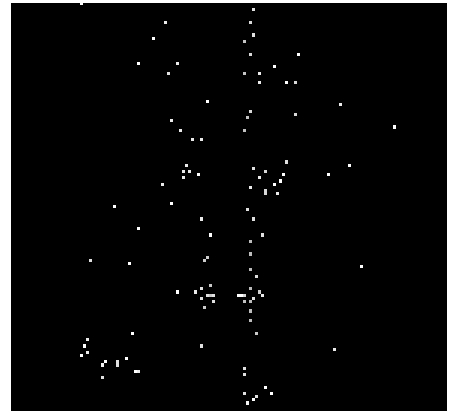
3.2 MEG Arm



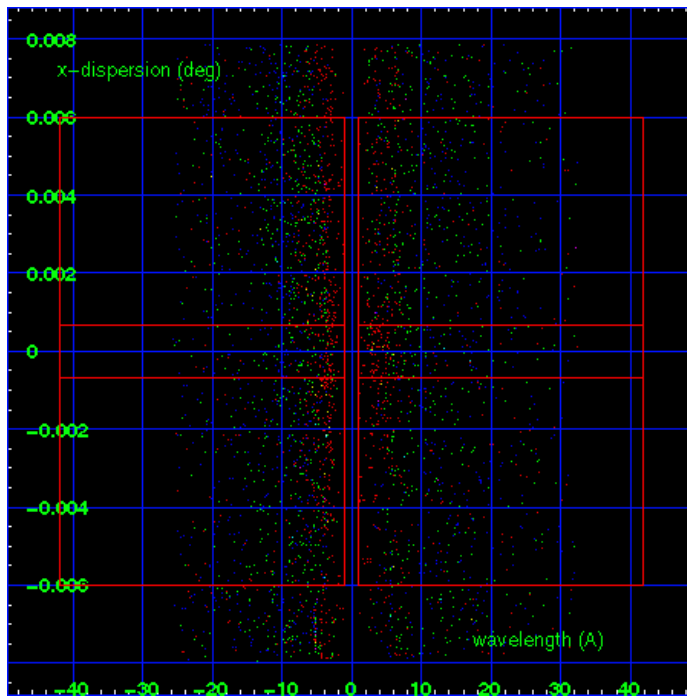
MEG Order Sort 123



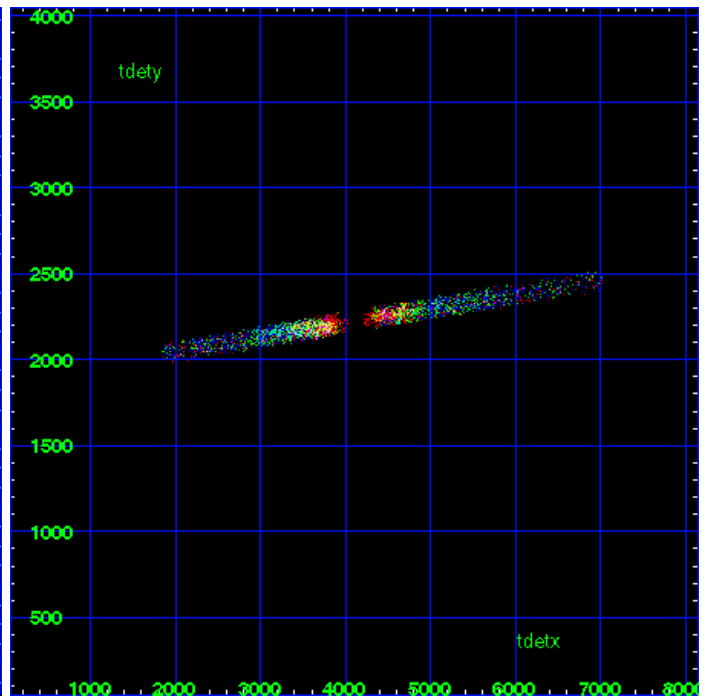
MEG Zero Order



MEG Order Sort ALL

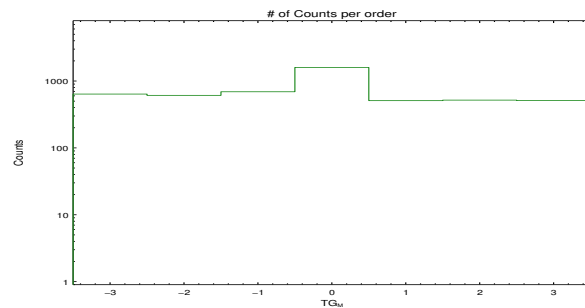


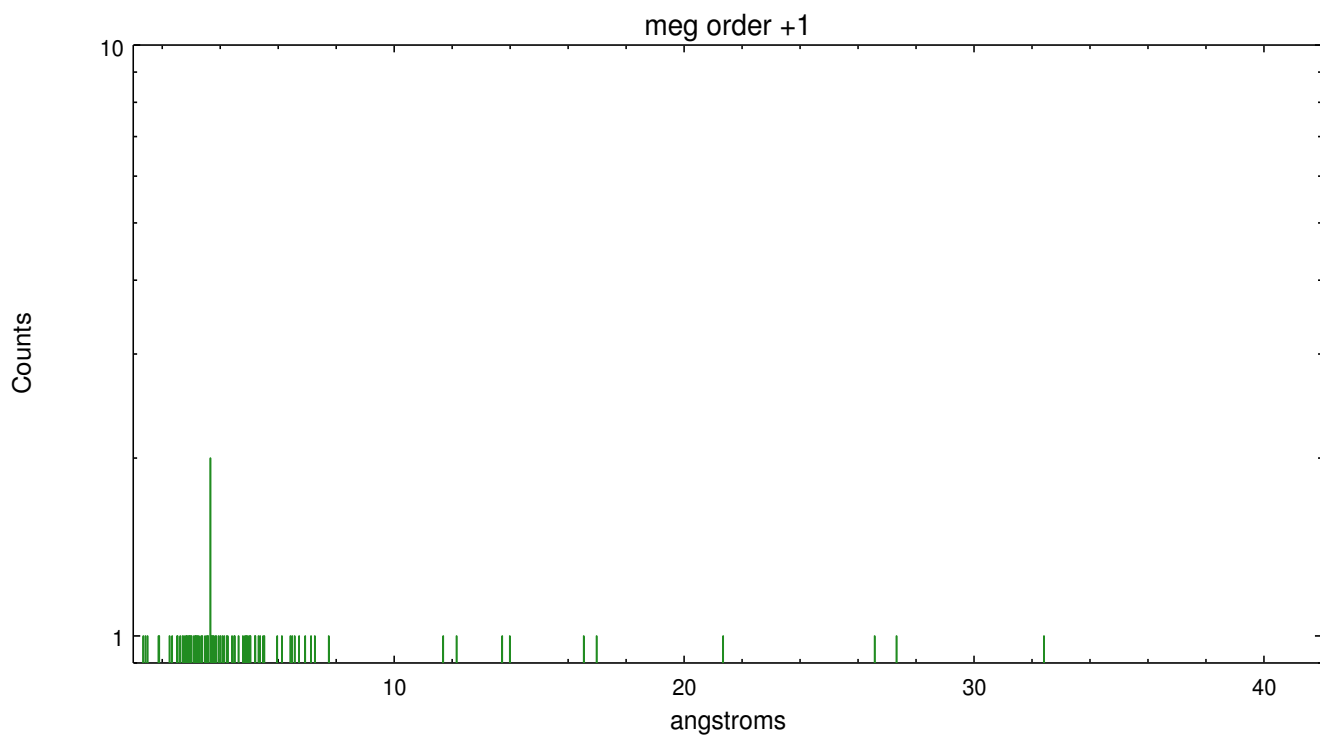
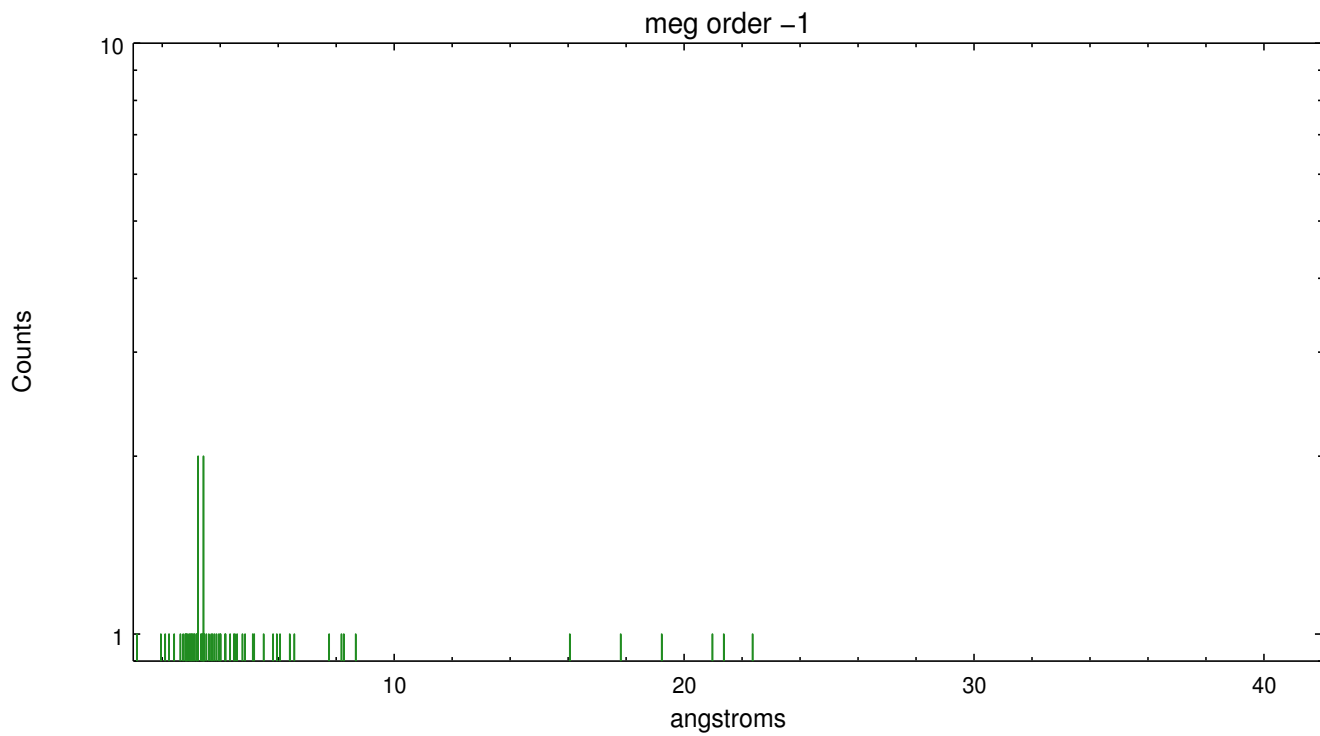
Spot Image MEG



Full Detector MEG

	order -3	order -2	order -1	order 0	order 1	order 2	order 3
Events	638	610	691	1597	509	518	511





A Summary

A.1 Status

V&V Scientist	David Huenemoerder
V&V Date (YYYY-MM-DD)	2012.08.20
V&V Edition	1
V&V Disposition and Status	OK
V&V Charge Time	39.552900304198

A.2 Comments

Note: spatially complex region with multiple point sources and extended emission. The spectral extraction was centered on the nominal Sgr A* coordinates: (RA, DEC) = (266.41667, -29.00780)[deg]

Note: this obsid was re-processed because the above statement was not true in the previous version; only grating coordinates are affected.